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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2618345/DBW	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. PCT/AU2003/000253	International Filing Date (day/month/year) 28 February 2003	Priority Date (day/month/year) 1 March 2002
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ G06F 17/60		
Applicant SPEEDLEGAL HOLDINGS INC et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 14 sheet(s).

3. This report contains indications relating to the following items:

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|------|-------------------------------------|---|
| I | <input checked="" type="checkbox"/> | Basis of the report |
| II | <input type="checkbox"/> | Priority |
| III | <input type="checkbox"/> | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| IV | <input type="checkbox"/> | Lack of unity of invention |
| V | <input checked="" type="checkbox"/> | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| VI | <input type="checkbox"/> | Certain documents cited |
| VII | <input type="checkbox"/> | Certain defects in the international application |
| VIII | <input type="checkbox"/> | Certain observations on the international application |

Date of submission of the demand 30 September 2003	Date of completion of the report 17 June 2004
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer DALE SIVER Telephone No. (02) 6283 2196

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/AU2003/000253

Basis of the report

With regard to the elements of the international application:*

☐ the international application as originally filed.☒ the description, pages 1-3, 6-68 as originally filed,

pages , filed with the demand,

pages 4,5 received on 1 June 2004 with the letter of 1 June 2004

☒ the claims, pages , as originally filed,

pages , as amended (together with any statement) under Article 19,

pages , filed with the demand,

pages 69-80 received on 1 June 2004 with the letter of 1 June 2004

☒ the drawings, pages 1/15 to 15/15 as originally filed,

pages , filed with the demand,

pages , received on with the letter of

☐ the sequence listing part of the description:

pages , as originally filed

pages , filed with the demand

pages , received on with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages☐ the claims, Nos.☐ the drawings, sheets/fig.

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1-89	YES
	Claims	NO
Inventive step (IS)	Claims 1-89	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-89	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

- D1 US 2001/0018697 A (KUNITAKE et al.) 30 August 2001
D2 US 5729751 A (SCHOOLCRAFT) 17 March 1998
D3 US 5960419 A (FAGG, III et al.) 28 September 1999
D4 WO 98/57284 A (DOCUMENTS LIMITED et al.) 17 December 1999
D5 WO 96/17310 A (AVALANCHE DEVELOPMENT COMPANY) 6 June 1996
D6 EP 650130 B (XEROX CORPORATION) 4 October 2001
D7 EP 1136915 A (EPOCH SOFTWARE HOLDINGS PLC) 26 September 2001
D8 WO 01/88703 A (WATTERSON-PRIME SOFTWARE, INC.) 22 November 2001

Novelty (N)

(Amended) Claim 1 defines a document generation system with i) a generation component for generating an XML source document from an initial XML document including references to logic sources ii) an insertion component for inserting instructions into an XML source document. The new feature is that the XML source document and initial XML document are both "valid with respect to the same predetermined schema". None of the citations disclose the new features of claim 1. Similar differences exist in the remaining claims. The claims are novel in light of the above prior art documents.

Inventive step (IS)

The features added in the remaining claims have an inventive step, because they would not be obvious to a person skilled in the art of structured document processing. It would not be obvious to make the source document valid with respect to a predetermined DTD or schema. The (amended) claims satisfy PCT requirements for inventive step.

Industrial applicability (IA)

The claims have industrial applicability.

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ART 34 AMDT**SUMMARY OF THE INVENTION**

In accordance with the present invention there is provided a document generation system, including:

- 5 (i) an insertion component for inserting in an initial document one or more processing instructions for determining content of an instance document; and
- (ii) a generation component for generating a source document by inserting in said initial document one or more references to respective logic sources external to said source document, said logic sources including information for use in conjunction with said one or more processing instructions to determine content of said instance
10 document.

The present invention also provides a method for generating a source document for a document assembly system, including:

- 15 (i) inserting in an initial document one or more processing instructions for determining content of an instance document; and
- (ii) generating said source document by inserting in said initial document one or more references to respective logic sources external to said source document, said logic sources including information for use in conjunction with said one or more processing instructions to determine content of said instance document.

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The present invention also provides a document assembly system, including:

- an assembler for generating an instance document on the basis of one or more logic sources and a source document, said source document including at least one processing instruction and at least one reference to at least one of said logic sources, respectively, said
25 one or more logic sources being external to said source document.

The present invention also provides a document assembly method, including:

- accessing a source document including one or more processing instructions and one or more references to respective logic sources external to said source document; and
- 30 generating an instance document on the basis of said source document and said logic sources.

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The present invention also provides a document assembly system, including a processing engine for generating an instance document from at least one source document and at least one logic source referred to in said at least one source document.

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The present invention also provides a document assembly system, including an editor for generating an XML source document by associating an initial XML document with logic, said initial document and said source document being valid with respect to the same predetermined schema.

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The present invention also provides a source document for a document assembly system, said source document including:

one or more processing instructions for determining content of an instance document; and

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one or more references to respective logic sources external to said source document, said logic sources including information for use in conjunction with said one or more processing instructions to determine content of said instance document.

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The present invention also provides a logic source for a document assembly system, said logic source including one or more logic elements for determining content of an instance document from a source document including a reference to said logic source.

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The present invention also provides a grammar for a logic source for use with a document assembly system, said grammar defining processing instructions for determining content of an instance document generated from a source document including a reference to said logic source.

BRIEF DESCRIPTION OF THE DRAWINGS

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Preferred embodiments of the present invention are hereinafter described, by way of example only, with reference to the accompanying drawings, wherein:

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ART 34 AMDT**CLAIMS:**

1. A document generation system, including:
 - 5 (i) an insertion component for inserting in an initial document one or more processing instructions for determining content of an instance document; and
 - (ii) a generation component for generating a source document by inserting in said initial document one or more references to respective logic sources external to said source document, said logic sources including information for use in conjunction with said one or more processing instructions to
10 determine content of said instance document.
2. A document generation system as claimed in claim 1, wherein said source document is valid with respect to a predetermined schema.
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3. A document generation system as claimed in claim 2, wherein said initial document is valid with respect to said predetermined schema.
4. A document generation system as claimed in claim 2, wherein said instance
20 document is valid with respect to said predetermined schema.
5. A method for generating a source document for a document assembly system, including:
 - 25 (i) inserting in an initial document one or more processing instructions for determining content of an instance document; and
 - (ii) generating said source document by inserting in said initial document one or more references to respective logic sources external to said source document, said logic sources including information for use in conjunction with said one or more processing instructions to determine content of said
30 instance document.

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6. A method as claimed in claim 5, wherein said step of inserting one or more processing instructions includes defining one or more conditions for determining content of said instance document.
- 5 7. A method as claimed in claim 6, wherein said conditions include conditions for determining whether portions of said source document will be included in said instance document.
8. A method as claimed in claim 5, including adding, to a logic source, one or more
10 logic elements for determining content of an instance document.
9. A method as claimed in claim 8, wherein said one or more logic elements include interview data for defining one or more questions for a user of said document assembly system, and for receiving responses to said questions.
- 15 10. A method as claimed in claim 5, including inserting one or more processing instructions defining one or more conditions in one or more of said logic sources, and inserting one or more processing instructions in said source document associating said conditions with one or more portions of said source document.
- 20 11. A method as claimed in claim 5, wherein said step of inserting one or more processing instructions includes inserting a processing instruction indicating where content external to said source document can be included in said instance document.
- 25 12. A method as claimed in claim 5, wherein said source document includes an extensible markup language (XML) document.
- 30 13. A method as claimed in claim 5, wherein said processing instructions include XML processing instructions.

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14. A method as claimed in claim 11, wherein said processing instructions include application data that can be parsed as XML.
15. A method as claimed in claim 7, wherein said portions include XML elements.
- 5 16. A method as claimed in claim 5, wherein said source document is valid with respect to a predetermined schema.
- 10 17. A document generation system as claimed in claim 16, wherein said initial document is valid with respect to said predetermined schema.
18. A method as claimed in claim 16, wherein said instance document is valid with respect to said predetermined schema.
- 15 19. A method as claimed in claim 5, wherein said one or more references include respective universal resource indicators (URIs).
20. A method as claimed in claim 5, wherein said logic sources are represented in extensible markup language (XML).
- 20 21. A method as claimed in claim 5, wherein said logic sources are valid with respect to a predetermined schema.
22. A method as claimed in claim 21, wherein said schema for said logic sources includes a condition element having an attribute of type ID.
- 25 23. A method as claimed in claim 5, including inserting in one or more of said logic sources party data defining, on the basis of one or more attributes of a party used in said logic source, text used in relation to said party.

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24. A method as claimed in claim 23, wherein said one or more attributes include one or more of gender and number.
25. A method as claimed in claim 5, wherein said step of generating includes inserting
5 in said initial document party mapping data for mapping one or more attributes of one or more parties used in said logic sources to respective attributes used in said source document.
26. A document assembly system, including:
10 an assembler for generating an instance document on the basis of one or more logic sources and a source document, said source document including at least one processing instruction and at least one reference to at least one of said logic sources, respectively, said one or more logic sources being external to said source document.
27. A document assembly method, including:
15 accessing a source document including one or more processing instructions and one or more references to respective logic sources external to said source document; and
20 generating an instance document on the basis of said source document and said logic sources.
28. A method as claimed in claim 27, wherein said one or more processing instructions include one or more conditions, and said step of generating includes evaluating said
25 one or more conditions to determine content of said instance document.
29. A method as claimed in claim 28, wherein said one or more conditions include one or more conditions for determining whether portions of said source document are included in said instance document.

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30. A method as claimed in claim 27, wherein each of said logic sources includes one or more logic elements.
- 5 31. A method as claimed in claim 27, wherein each of said logic sources includes one or more conditions, and said step of generating includes evaluating at least one of said conditions to determine whether a corresponding portion of the source document is included in said instance document.
- 10 32. A method as claimed in claim 27, including generating interview data for displaying one or more questions to a user of said document assembly system, and for receiving responses to said questions.
- 15 33. A method as claimed in claim 27, wherein each of said logic sources includes one or more references to respective other logic sources external to said logic source.
34. A method as claimed in claim 27, wherein one or more logic elements in said one or more logic sources include interview data, and said step of generating includes providing one or more questions to a user and receiving one or more responses to said questions on the basis of said interview data.
- 20 35. A method as claimed in claim 32, wherein said step of generating includes generating assembly data on the basis of said responses.
36. A method as claimed in claim 35, wherein said instance document is generated on the basis of said assembly data.
- 25 37. A method as claimed in claim 27, wherein said step of generating includes accessing said logic sources on the basis of said references.
- 30 38. A method as claimed in claim 27, wherein said step of generating includes accessing one or more other source documents referenced by said source document.

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39. A method as claimed in claim 27, wherein said step of generating includes including text from a logic source in said instance document.
- 5 40. A method as claimed in claim 27, wherein said step of generating includes including user response text in said instance document.
- 10 41. A method as claimed in claim 27, wherein said one or more logic sources include one or more phrases to be used in relation to a party, where the party has values for facets such as gender or number which match the facets specified for said one or more phrases.
- 15 42. A method as claimed in claim 27, wherein said step of generating includes including an item one or more times in said instance document.
43. A method as claimed in claim 42, wherein said item has a different value for each of said times.
- 20 44. A method as claimed in claim 27, wherein said step of generating includes evaluating a variable associated with textual data and including said textual data in said instance document if said variable has a first value and omitting said textual data from said instance document if said variable has a second value.
- 25 45. A method as claimed in claim 44, wherein said variable is a Boolean variable.
46. A method as claimed in claim 27, wherein said step of generating includes evaluating a variable and including the value of said variable in said instance document.
- 30 47. A method as claimed in claim 27, wherein said one or more references include respective universal resource indicators (URIs).

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48. A method as claimed in claim 27, wherein said source document includes an extensible markup language (XML) document.
- 5 49. A method as claimed in claim 27, wherein said processing instructions include XML processing instructions.
50. A method as claimed in claim 27, wherein said processing instructions include application data that can be parsed as XML.
- 10 51. A method as claimed in claim 27, wherein said logic sources include extensible markup language (XML) logic sources.
52. A method as claimed in claim 27, wherein said source document is valid with
15 respect to a predetermined schema.
53. A method as claimed in claim 52, wherein said instance document is valid with respect to said predetermined schema.
- 20 54. A method as claimed in claim 27, wherein each of said logic sources is valid with respect to a predetermined schema.
55. A method as claimed in claim 27, wherein said one or more logic sources include one or more processing instructions.
- 25 56. A method as claimed in claim 55, including resolving one or more variables of said processing instructions, and wherein said instance document is generated on the basis of the resolved variables.
- 30 57. A method as claimed in claim 56, wherein said resolving includes accessing a database.

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58. A method as claimed in claim 56, wherein said resolving includes performing one or more interviews with a user.
- 5 59. A method as claimed in claim 56, wherein said resolving includes executing one or more functions associated with said one or more processing instructions.
60. A method as claimed in claim 27, wherein said step of generating includes mapping one or more attributes of one or more parties used in said one or more logic sources to respective attributes used in said source document on the basis of mapping data of said source document.
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61. A document assembly method, including:
accessing an XML source document and logic associated with said XML source document; and
generating an instance document on the basis of said XML source document and said logic.
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62. A method as claimed in claim 61, wherein said source document is valid with respect to a predetermined schema.
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63. A method as claimed in claim 62, wherein at least part of said logic and/or at least a reference to said logic is included in said source document and said predetermined schema omits a logic component or reference.
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64. A method as claimed in claim 62, wherein said instance document is valid with respect to said predetermined schema.
65. A method for use with a document assembly system, including generating an XML source document by associating an initial XML document with logic, said initial
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document and said source document being valid with respect to the same predetermined schema.

- 5 66. A method as claimed in claim 65, wherein said logic is associated with one or more XML processing instructions of one or more XML documents.
67. A method as claimed in claim 66, wherein said one or more XML documents includes said source document.
- 10 68. A method as claimed in claim 65, wherein said source document includes one or more XML processing instructions including one or more references to respective other XML documents, the one or more other XML documents including one or more XML processing instructions including logic used in conjunction with said source document to determine content of an instance document.
- 15 69. A system having components for executing the steps of any one of claims 5 to 25 or 27 to 68.
- 20 70. A software having program code for executing the steps of any one of claims 5 to 25 or 27 to 68.
71. A computer readable storage medium having stored thereon program code for executing the steps of any one of claims 5 to 25 or 27 to 68.
- 25 72. A document assembly system, including a processing engine for generating an instance document from at least one source document and at least one logic source referred to in said at least one source document.
- 30 73. A system as claimed in claim 72, wherein said instance document includes an XML instance document.

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74. A system as claimed in claim 72, wherein said system includes a rendering engine for generating from said instance document an output instance document for display in at least one output format.
- 5 75. A system as claimed in claim 74, wherein said at least one output format includes at least one of hypertext markup language (HTML) format, portable document format (PDF), and rich text format (RTF).
- 10 76. A system as claimed in claim 72, including an editor for editing source documents and logic sources on the basis of respective schema.
- 15 77. A document assembly system, including an editor for generating an XML source document by associating an initial XML document with logic, said initial document and said source document being valid with respect to the same predetermined schema.
- 20 78. A source document for a document assembly system, said source document including:
one or more processing instructions for determining content of an instance document; and
one or more references to respective logic sources external to said source document, said logic sources including information for use in conjunction with said one or more processing instructions to determine content of said instance document.
- 25 79. A source document as claimed in claim 78, wherein said processing instructions include one or more conditions for determining content of said instance document.
- 30 80. A source document as claimed in claim 79, wherein a condition depends upon one or more other conditions.

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81. A source document as claimed in claim 80, wherein said conditions are related by Boolean operators.
- 5 82. A source document as claimed in claim 78, wherein said source document includes an extensible markup language (XML) document.
83. A source document as claimed in claim 78, wherein said processing instructions include XML processing instructions.
- 10 84. A source document as claimed in claim 78, wherein said one or more processing instructions include application data that can be parsed as XML.
85. A source document as claimed in claim 78, including mapping data for mapping one or more attributes of one or more parties used in said one or more logic sources to respective attributes used in said source document.
- 15 86. A logic source for a document assembly system, said logic source including one or more logic elements for determining content of an instance document from a source document including a reference to said logic source.
- 20 87. A logic source as claimed in claim 86, wherein said logic elements include one or more condition elements for determining content of said instance document.
88. A logic source as claimed in claim 86, wherein said logic source includes interview data for displaying questions to a user and for determining responses to said questions.
- 25 89. A logic source as claimed in claim 86, wherein said logic source includes one or more references to respective other logic sources external to said logic source, said other logic sources including information for use in determining content of said instance document.
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- 5 90. A logic source as claimed in claim 89, wherein a reference to a logic source or a source document includes party mapping information for mapping a first party used in the referenced source document or logic source to a second party used in the referring source document or logic source.
- 10 91. A logic source as claimed in claim 86, wherein said source document includes a processing instruction referencing a second source document for import into said source document.
92. A logic source as claimed in claim 86, wherein said source document includes a processing instruction for including in said instance document text from a logic source.
- 15 93. A logic source as claimed in claim 88, wherein said source document includes a processing instruction for including in said instance document response text provided by said user.
- 20 94. A logic source as claimed in claim 86, wherein said source document includes a processing instruction for including an element one or more times in said instance document.
95. A logic source as claimed in claim 94, wherein said element has different content for each of said times.
- 25 96. A logic source as claimed in claim 86, wherein said source document includes an extensible markup language (XML) document.
- 30 97. A logic source as claimed in claim 86, wherein said processing instructions include XML processing instructions.

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98. A logic source as claimed in claim 97, wherein said XML processing instructions include processing instruction data that can be parsed as XML.
- 5 99. A logic source as claimed in claim 86, including party data defining, on the basis of one or more attributes of a party used in said logic source, text used in relation to said party.
100. A logic source as claimed in claim 99, wherein said one or more attributes include one or more of gender and number.
- 10 101. A grammar for a logic source for use with a document assembly system, said grammar defining processing instructions for determining content of an instance document generated from a source document including a reference to said logic source.
- 15 102. A logic source as claimed in claim 101, wherein said grammar includes an extensible markup language schema.